

# Data Sheet

CUSTOMER: Synology Inc.

MODEL NAME: 2.4GHz/5GHz Dual Band Antenna

ACON P/N: ARMEE-000000



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## 1 Specification

### 1.1 Electrical Properties

- 1.1.1 Frequency Range-----2.4GHz~2.5GHz&5.15GHz ~ 5.85GHz
- 1.1.2 Impedance----- 50Ω
- 1.1.3 VSWR----- 2:1
- 1.1.4 Return Loss----- 10dB or Less
- 1.1.5 Peak Gain----- 3.5 dBi (2.4GHZ)  
4.6 dBi (5GHZ)
- 1.1.6 Admitted Power----- 1W
- 1.1.7 Cable----- Ø1.13
- 1.1.8 Antenna Type----- Helix Type

### 1.2 Physical Properties

- 1.2.1 Antenna Body----- Helix
- 1.2.2 Operating Temp----- -10°C~+60°C
- 1.2.3 Storage Temp----- -10°C~+70°C

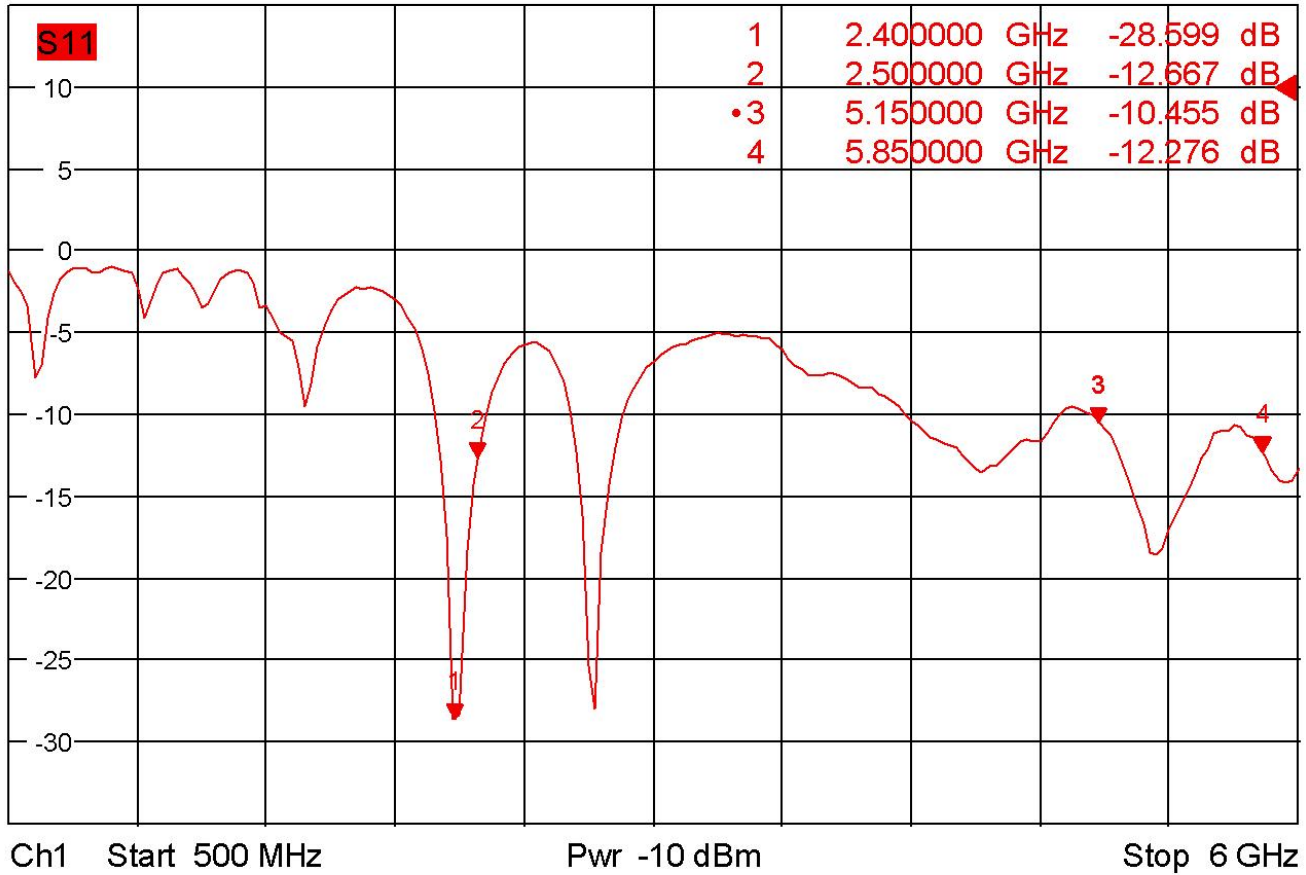
**Performance Data**

**2.1 D1 VSWR (2.4 & 5GHZ)**

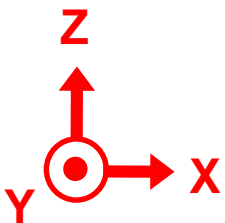


Trc1 **S11** dB Mag 5 dB / Ref 10 dB Cal

1 of 2 (Max)



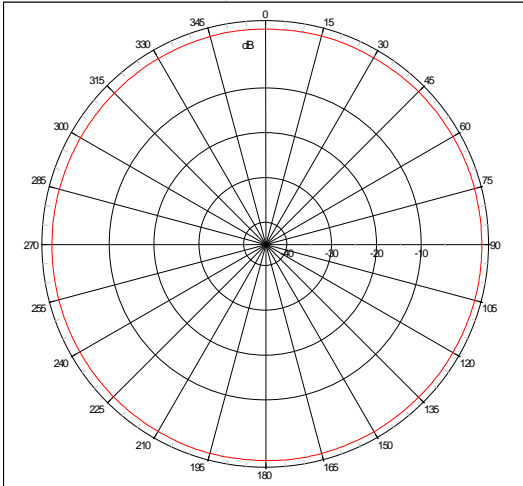
Date: 7.JAN.2015 10:10:09



## 2.2 Radiation pattern & Gain (WIFI 2.4&5G Antenna)

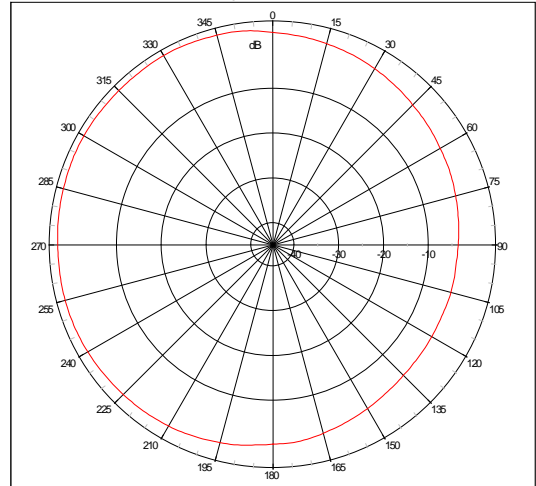
### 2.4G

Far-field Power Distribution(H+V) on X-Y Plane  
Plot Peak Gain(H+V)= 3.3 dBi; Plot AvgGain(H+V)= 3.1dBi @2.45000 GHz

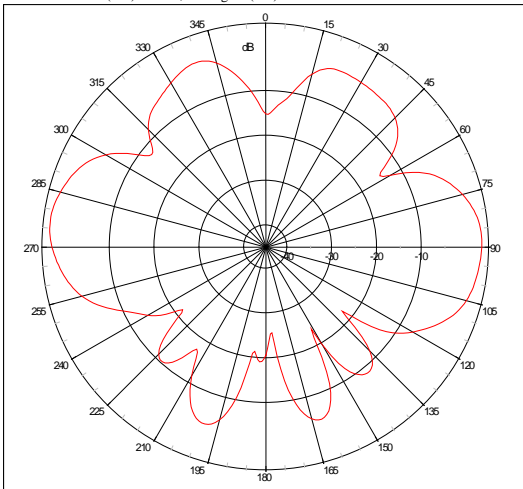


### 5G

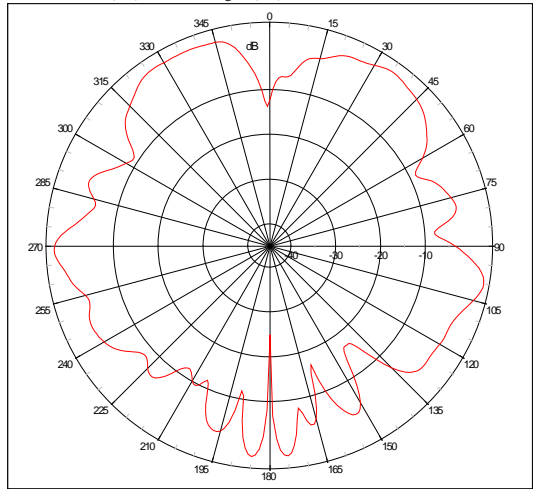
Far-field Power Distribution(H+V) on X-Y Plane  
Plot Peak Gain(H+V)= 3.8 dBi; Plot AvgGain(H+V)= 0.8dBi @5.47000 GHz



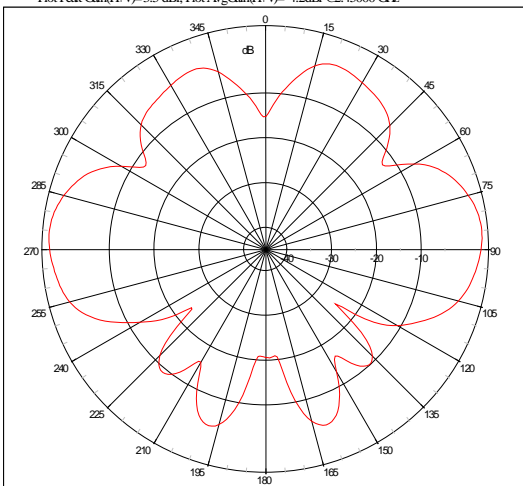
Far-field Power Distribution(H+V) on Y-Z Plane  
Plot Peak Gain(H+V)= 3.4 dBi; Plot AvgGain(H+V)= -4.4dBi @2.45000 GHz



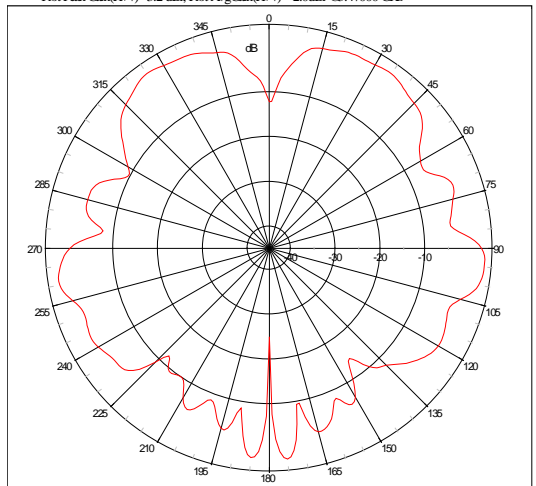
Far-field Power Distribution(H+V) on Y-Z Plane  
Plot Peak Gain(H+V)= 3.4 dBi; Plot AvgGain(H+V)= -2.2dBi @5.47000 GHz



Far-field Power Distribution(H+V) on X-Z Plane  
Plot Peak Gain(H+V)= 3.5 dBi; Plot AvgGain(H+V)= -4.2dBi @2.45000 GHz



Far-field Power Distribution(H+V) on X-Z Plane  
Plot Peak Gain(H+V)= 3.2 dBi; Plot AvgGain(H+V)= -2.0dBi @5.47000 GHz



**Antenna Gain Table: D1(2.4&5GHZ)**

Freq.(MHz)	Eff. (%)	Peak Gain (dBi)
2400	63	3
2450	70	3.1
2500	69	3.5
5150	68	3.2
5350	66	3.7
5470	76	4
5725	72	3.5
5850	68	4.6

### 3. Mechanical Specification

#### 3.1 Assembly Drawing

